What's In, What's Out
Designing and adjusting health benefits plans for UHC

Amanda Glassman
Center for Global Development

Who We Are: CGD

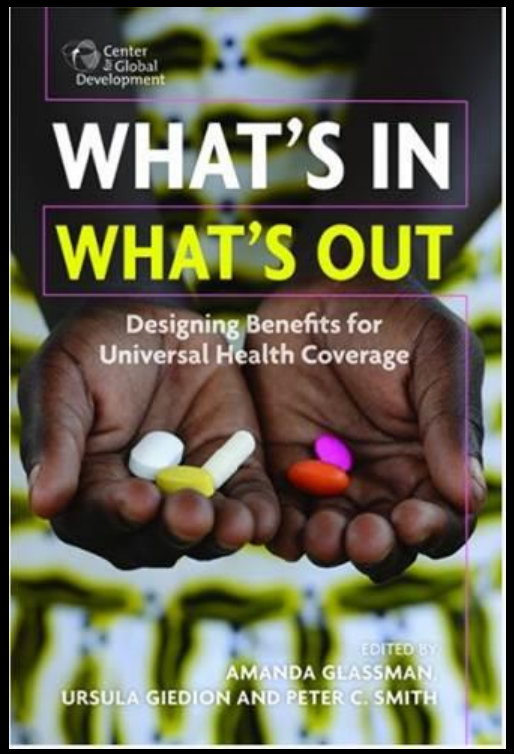
- Independent, non-profit, non-partisan policy think tank based in Washington, DC and London
- Focus on global public goods and issues that can transform quality of life in LMICs
- Economics and financing perspective
- Research areas:
  - Global health and population
  - Debt
  - Migration
  - Trade
  - Climate
  - Development finance
  - Development aid effectiveness

CGD's Global Health Policy Program

Economics for Global Health Challenges:

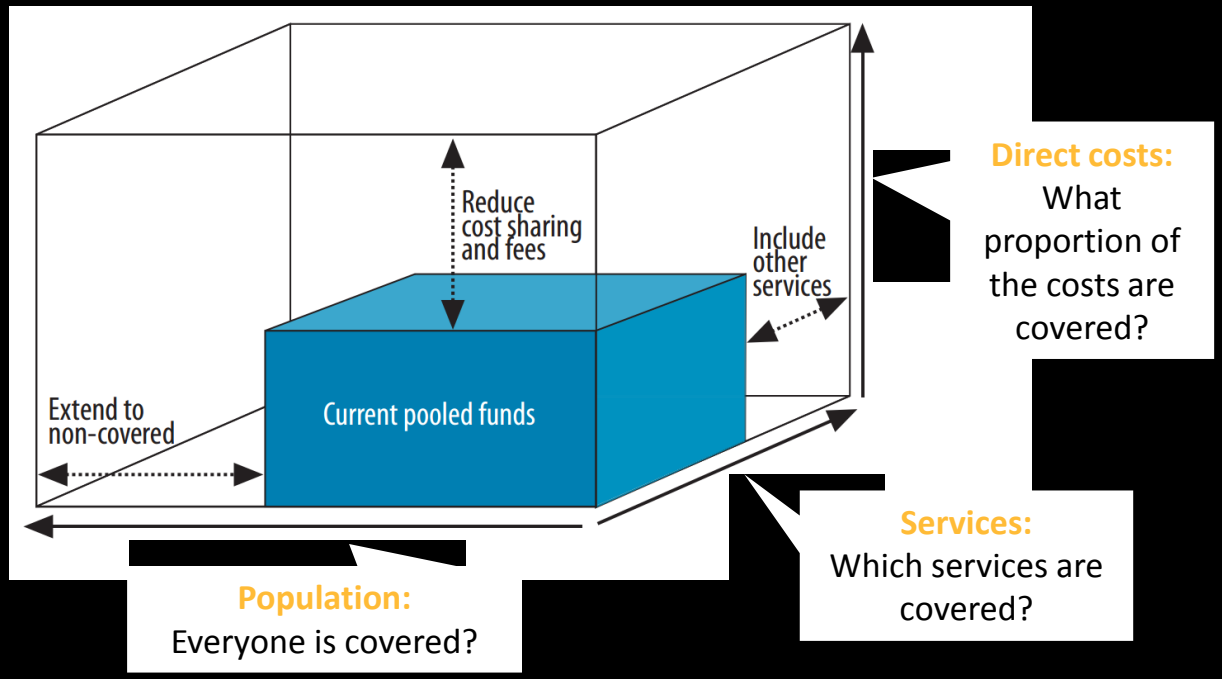
- Focus on rational resource allocation, value for money, evidence generation and use, global health security, and incentives for impact
- Extensive previous work on key funders/funding mechanisms including PEPFAR, Global Fund, UNFPA, USAID, others
- Previous work across commodity groups, including essential medicines, HIV/AIDS, malaria, tuberculosis, family planning, and on-patent NCD meds

Why we wrote this book



- Commitment to equitable and high-impact UHC
- Central and ubiquitous challenge to health systems
- High stakes for all involved, life-and-death decisions
- New efforts to systematize process in middle-income countries
    - Opportunity to learn across countries

Balancing coverage with available financing is the UHC imperative



Competing priorities and interests in ad hoc or inertial process of resource allocation = implicit rationing

Many 'priorities'…

Asthma management in general practice

A chronic disease health priority

PRESS RELEASE

Sept. 19, 2011, 5:33 p.m. EDT

American Heart Association Urging Action at UN Summit on Non-Communicable Diseases

Organization Calls for More Focus on Cardiovascular Diseases - the World's No. 1 Killer

Palliative Care: A Public Health Priority in Developing Countries

Reproductive cancers: high burden of disease, low level of priority

…many interests

MSF asks India to make affordable hepatitis C medicines as Natco resists expensive US drug patent

- 12-04-2014
- By Sehat
- Bookmark

The new drug war

Hard pills to swallow

Drug firms have new medicines and patients are desperate for them. But the arguments over cost are growing

Jan 4th 2014 | NAIROBI AND NEW YORK |

It gets personal quickly

Colombia: Camila Abuabara

Sues for public coverage of a liver transplant in US hospital

Twitter:

- *Ministro de salud @agaviriau me condena a la pena de muerte en Colombia y según él yo debo de aceptar gustosa junto a su compinche de EPS*

And *ad hoc* practices lead to inequities…

Hospital committees that decide who gets a spot under limited dialysis budget:

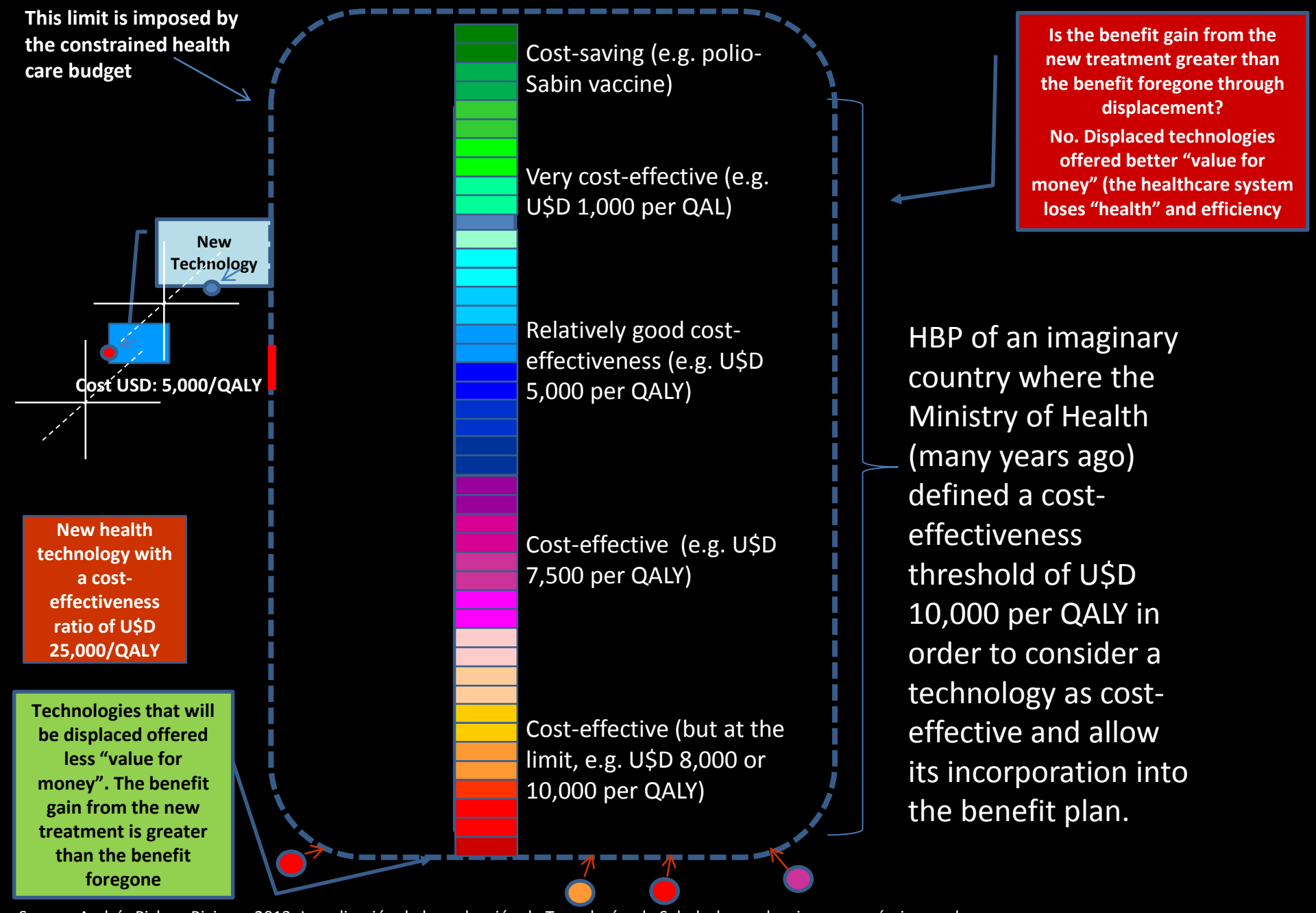
- In South Africa, between 1988 and 2003, white patients were nearly four times more likely to be accepted for dialysis treatment than nonwhites (NPR 2010, Sheri Fink)

Patients sue for public coverage, opportunity costs not considered

- Rafael Favero, a patient with a rare anemia, sues for a $440,000 drug and wins in Brazil (http://revistaepoca.globo.com/tempo/noticia/2012/03/o-paciente-de-r-800-mil.html)
- Annual cost of meds = annual insurance premium for 20,000 people

Fixed budgets for seeking healthcare overseas:

- Guyana sets aside an amount and its use is first-come, first-served, no criteria. Exceptions go to president for decision.



Source: Andrés Pichon-Riviere , 2013. La aplicación de la evaluación de Tecnologías de Salud y las evaluaciones económicas en la definición de los Planes de Beneficios en Latinoamérica

From a list to a policy and process

COUNTRY EXPERIENCES

What is a HBP policy? Not just a list but a process

From a list to a HBP policy:

- What is included is a function of available funds
- Completely or partially constrains products and services available through health system
- Comprises a portfolio of products and interventions

Not:

- Ad hoc rationing or implicit resource allocation (including everything and then using budget until $ runs out then user fees or no provision, or constraining supply capacity)

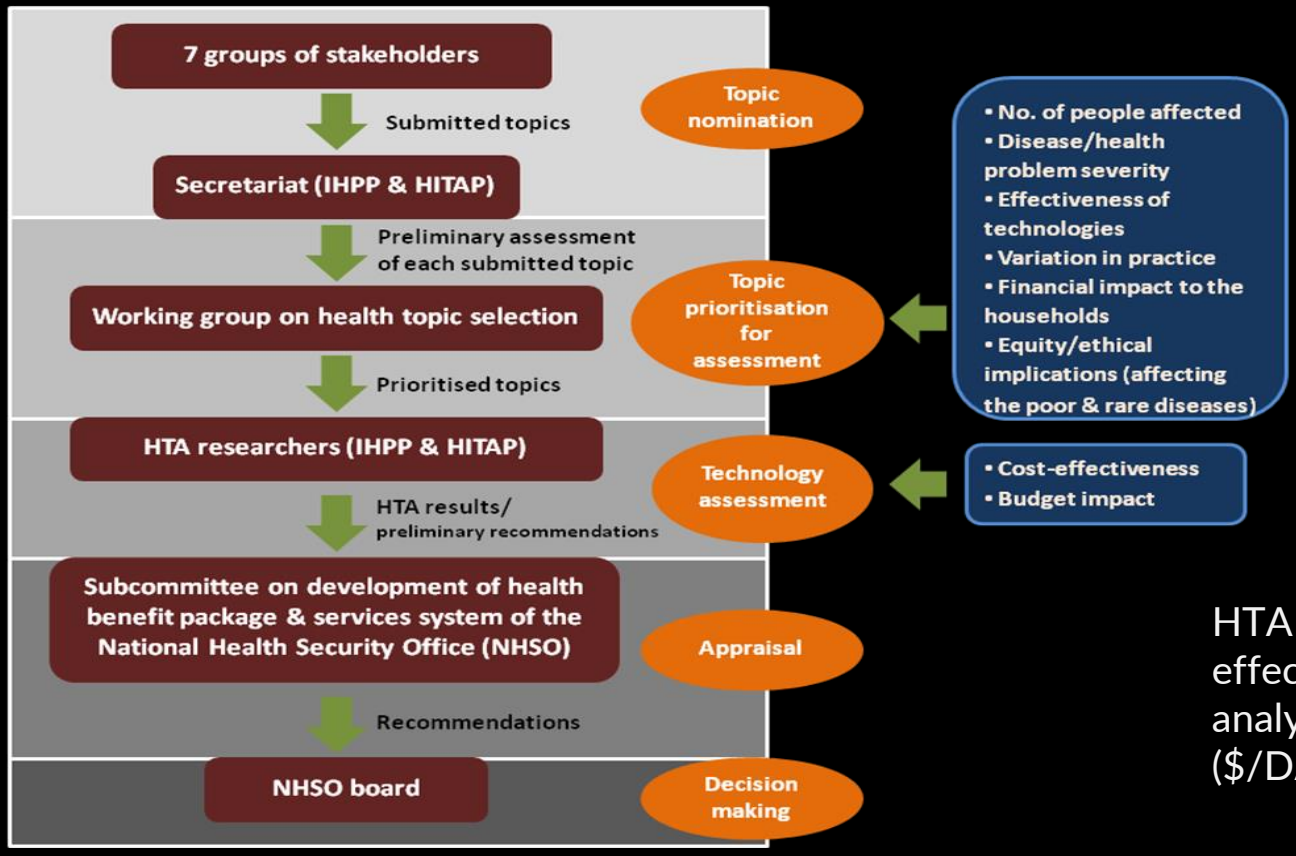
Technical but also political, procedural, fiscal, ethical and legal process

- Informing all relevant health system functions in order to be effective
- Continuous function involving all relevant stakeholders in a structured process
- Builds on existing evidence to inform decisions on what will be subsidized
- Says something about how to handle exclusions (not yet, certain indications, wait for more evidence, etc.)
- Exact arrangements vary across settings, several seem to work

How does a HBP policy help achieve UHC? Some country examples

- More health for the money
  - Introduces greater evidence into public spending decisions
  - Incentivizes the development of cost-effective new technologies
  - Informs procurement and pricing negotiations
- Informs provider commissioning or payment
- Informs budget expansions
- Cuts costs, reduces waste and harm
- Enhances equity and reduces care variations
- Improves accountability between payers, providers and patients

Thailand's process to define a universal coverage package



HTA = cost-effectiveness analysis ($/DALY)

Case study: deciding on dialysis in Thailand

- 2003: Patients + Thai nephrology association pressure for coverage of dialysis for ESRD in universal coverage scheme (UCS)
- 2004: the National Health Security Office (NHSO), which is responsible for the UCS, commissioned research to determine the value for money of dialysis, including the costs of providing renal replacement therapy in the UCS over 15 years.
- Neither peritoneal dialysis nor haemodialysis was shown to be cost-effective, but peritoneal dialysis offered better value than haemodialysis.
- If the government decided to provide universal access to renal replacement therapy, number of patients receiving dialysis would increase to more than 100 000 cases in the tenth year. The NHSO would spend a significant proportion of its annual budget on renal replacement therapy, accounting for 3% in the first year and 15% in the fifteenth year.

Source: Tantivess et al 2013 https://www.bmj.com/content/346/bmj.f462

Case study: deciding on dialysis in Thailand

- Although most nephrologists preferred haemodialysis to peritoneal dialysis, all the haemodialysis machines and people with the skills to use them were concentrated in greater Bangkok. This made haemodialysis inaccessible to patients in remote areas.
- NHSO commissioned a survey among Thais aged 18-60 years → respondents supported the inclusion of renal replacement therapy in the UCS, and most suggested that if rationing were needed priority should be given to patients with urgent health needs, those who were poor and underprivileged, and bread winners with several child dependents. When asked about a contribution from patients themselves, around 80% of the respondents were willing to pay 100 baht (£2; €2.5; $3) a dialysis session, far below the actual cost.
- Advocates increased the pressure to fund renal replacement therapy andgovernment finally agreed to universal funding in October 2007. The decision was influenced by the health minister, who had long term relationships with health reformists and non-governmental organisations.

Source: Tantivess et al 2013 https://www.bmj.com/content/346/bmj.f462

Case study: deciding on dialysis in Thailand

Lessons:

- Evidence is necessary for policy development, particularly in decisions about covering high cost interventions in resource limited settings
    - BUDGET IMPACT MUST BE LOCAL
- Process to generate and consider evidence with stakeholders as important as the evidence itself
- Vested interests (private dialysis providers) continue to press for less c/e hemodialysis, accusing government of providing a “second-class” treatment
    - Evidence and process helps to protect decision
- ESRD cases and costs continue to increase, consuming a large share of the budget, suggesting prevention inadequate
- “Not everybody can get what they think is the best treatment, but everybody can get good treatment.”
    - Only path to UHC

Thailand's better decisions paid off process costs

Annual cost of HITAP: 37 mn Thai baht (0.007% of THE in 2010)

	Description	Impact
Prevention of cervical cancer (2007)	• Assessed possibility of universal coverage of the HPV vaccine using cost-effectiveness analysis • Compared multiple scenarios to conclude that the most cost-effective strategy would be improving screening accessibility rather than universal vaccination	• **Health gains:** 1500 averted new cases and 750 female deaths per year • **Cost savings:** 6 million international dollars, approximating 0.02% of the total health expenditure budget in 2007
New drug regimen in PMTCT of HIV (2010)	• Assessed value-for-money of three-ARV regimen vs. current AZT monotherapy and single dose of nevirapine • Solved social debate regarding feasibility and value for money of a new drug regimen in PMCT of HIV	• **Health gains:** 101 paediatric HIV infections averted annually • **Cost savings:** 2.6 million USD over a lifetime

Cost savings from the cervical cancer screening assessment alone more than covered HITAP's operating costs (0.01% of THE budget in 2007)

Source: First Step Program Evaluation Report 2010; Praditsitthikorn N et al. 2011; HITAP Case Study 12March2011 (unpublished); PMTCT in Asia Manuscript 2011 (Unpublished)

Chile's AUGE HBP policy

Identification of 56 (now 80) prioritized health problems based on multiple criteria

- Associated clinical guidelines based partially on cost-effectiveness (446)
- Associated products (8005)

Guarantees of access, financial protection, timeliness of care

Rest is still provided but without guarantees

Chile's AUGE increases use of higher value services

Health problem	Hospitalization rate 2000-2006	Case-fatality rate 2000-2006
Hypertension	10% drop	11% drop
Type 1 diabetes	7% drop, especially among patients older than 30 years; steepest drop seen among ISAPRE beneficiaries	48% drop
Type 2 diabetes	13% increase, especially among older adults (older than age 65); steeper increase (72%) among ISAPRE beneficiaries, possibly because of better access to care or—to some extent—to population aging	Hospital death rate dropped 5%—a noteworthy finding given that this is an older, higher-risk population
Epilepsy	8.9% combined increase for all age groups; 11.4% observed increase among patients younger than age 15 (target population of AUGE); eightfold increase among ISAPRE beneficiaries	98% drop in fatality in all cases; no data are available to distinguish that rae between the population of AUGE beneficiaries for this disease (younger than age 15)
Depression	26% increase for the entire population, 45% increase among adolescents; fivefold increase among ISAPRE beneficiaries	98.6% drop
HIV/AIDS	24% global drop, a large part of which comes from children and adolescents who are beneficiaries of FONASA	56% drop

SOURCE Bitran et al 2010 based on Ministerio de Salud, Egresos Hospitalarios, 2002–6. NOTES AUGE is the health reform plan in Chile. ISAPRE is Instituciones de Salud Provisional. FONASA is Fondo Nacional de Salud

Romania's package revision reduces waste and harm

Quick assessment to revise medicines list using the following criteria:

- Medicines listed for indications outside the terms of their marketing approval (ie off-label).
- Medicines listed for indications or in settings in which they may not be cost effective.
- Medicines considered cost effective in other jurisdictions but unlikely to be cost effective at current Romanian prices
- Medicines for which subsidy is not supported by clear evidence of positive risk/benefit, irrespective of registration status.
- Medicines that may not reflect a high priority for subsidisation in a resource-limited environment.

For example:
According to Romanian treatment protocols, **bevacizumab** may be prescribed for first-line treatment of metastatic breast cancer

Recommendation: As the use of **bevacizumab** in breast cancer is no longer an approved indication, the subsidy should be discontinued.

Source: NICE International, 2012

Informs budget expansions and sizing of fiscal transfers

Example Mexico/Seguro Popular:

«..[]The benefits package was meant to help correct this inequity by guaranteeing the allocation of a specific amount of money per person. By establishing the content and cost of the Seguro Popular Benefits Package, ***it was possible to make the resource requirements evident****. This in turn helped to mobilize additional resources. As a result, the differences in per capita spending were reduced to 1.2 x.» (Knaul et al, 2012).*

Source: Giedion, U. 2013

Good HBP Governance Checklist

- ❑ Explicit statement of goals and criteria used to choose and adjust the benefits package, anchored in legal frameworks.
- ❑ Explicit rules on how coverage decisions are made, anchored in existing legal frameworks.
- ❑ Explicit institutional framework indicating specific responsibilities for making coverage decisions for different entities and government and independent bodies (define who does what and how different entities interact).
- ❑ Explicit rules on how the priority setting framework can be modified.
- ❑ Monitoring and evaluation to make sure actual decisions are in line with existing rules (more on this in the M&E chapter).
- ❑ Appeals mechanisms in place allowing actors to question decisions when not in line with established rules.
- ❑ Earmarked resources to allow the adequate functioning of the existing institutional framework.

Source: Giedion and Guzman forthcoming

Where things can go wrong – common pitfalls

- Failing to account for supply (and other) constraints
- Not considering opportunity costs of new inclusions
- Legislating specific benefits
- Setting up separate high cost drugs packages or funds
- Omitting primary care and prevention, fragmenting care
- Forgetting about ethics, transparency and process
- Allowing indefensible inclusions
- Permitting erosion of value over time, divorce from budget process
- Missing local data on costs

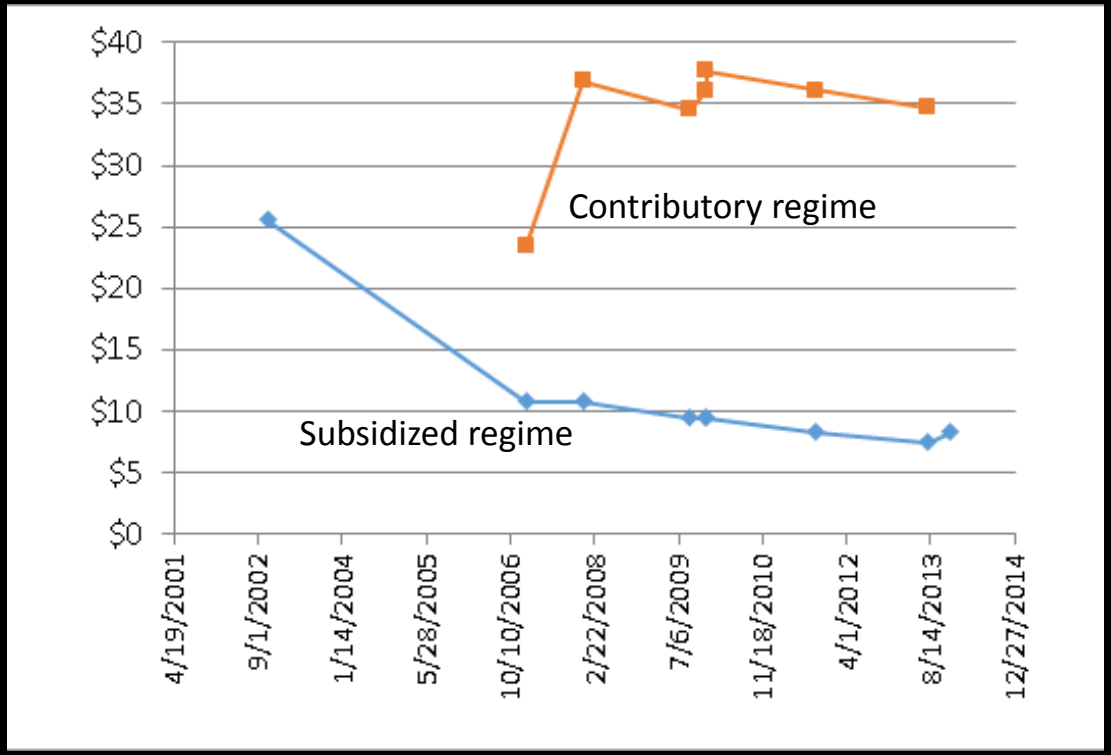
Ghana's NHIS: legislated benefits, didn't consider supply capacity, excludes prevention, inconsistent with available resources

STRENGTHS	WEAKNESSES
• Comprehensive service coverage • Covers both formal and informal sector • Poor and vulnerable catered for in broad exemption policy • Does not require co-payment and co-insurance	• Inclusion list is not clearly defined • Costly • Has been in use for 10 years without reform • Encourages provider and subscriber moral hazards • Disease management protocols are not defined • Excludes preventive care
OPPORTUNITIES	**THREATS**
• Possibility of developing an all- inclusive maternal health package of services • Common non communicable diseases can be managed with all inclusive package of service • Review of portability feature	• Depletion of fund reserves • Political pressure and interference • Advocacy for increased coverage from patient groups and civil society • Pressure from provider groups

Erosion of value: insufficient funding and eroding value in DR and Uganda

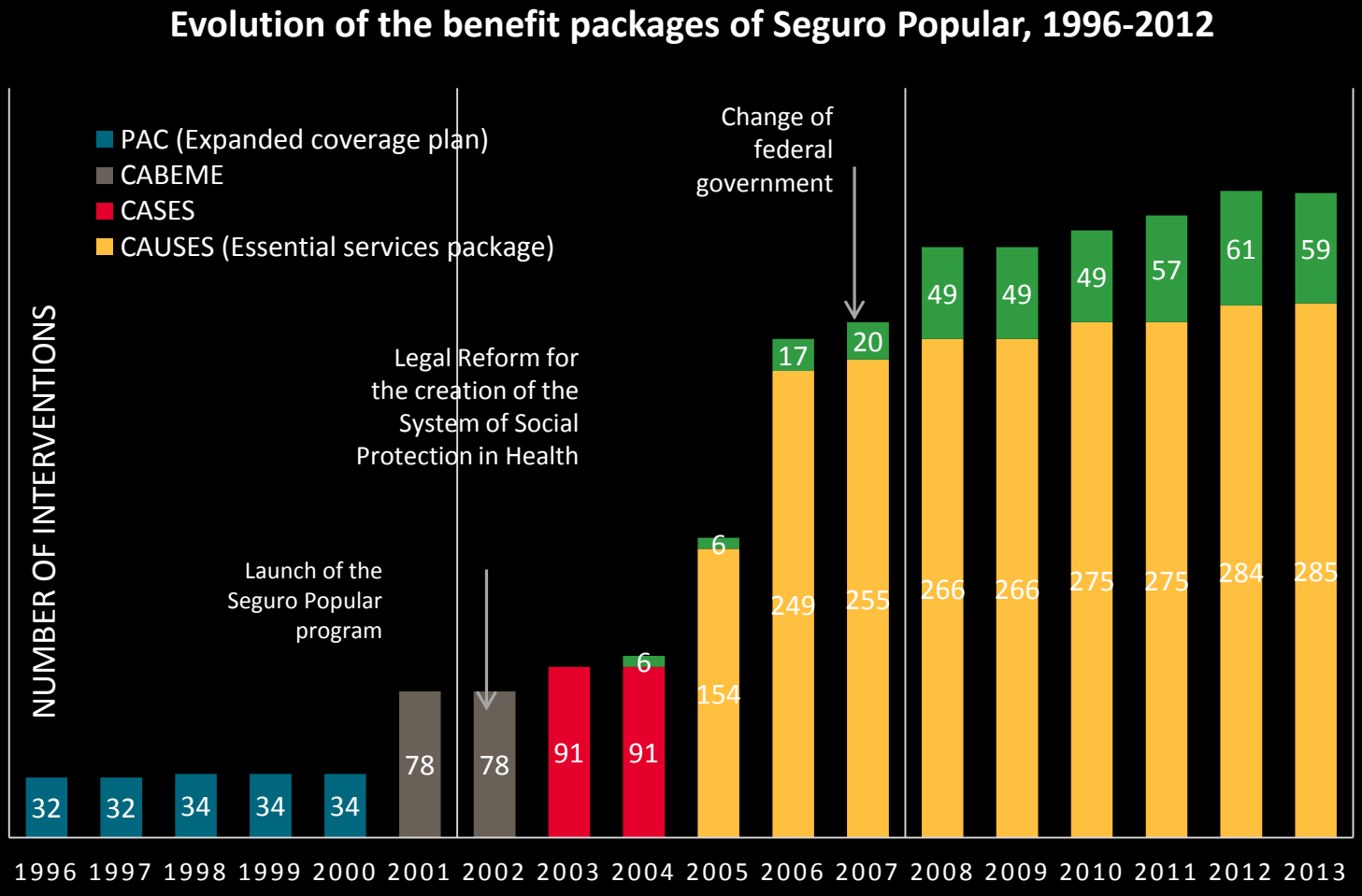
In Uganda, a package of services costing **$41** dollars was expected to be delivered at a per capita actual expenditure of **$12.50.**
Source: Tashobya et al 2003

Capitation payments to provide BP in Dominican Republic
US$, constant, 2001-2014



Source: Giedion et al 2014

Erosion of value: number of inclusions increase but funding only adjusted for inflation



Source: Panopoulou for 2013, Sistema de Protección Social en Salud. Informe de Resultados, 2013.

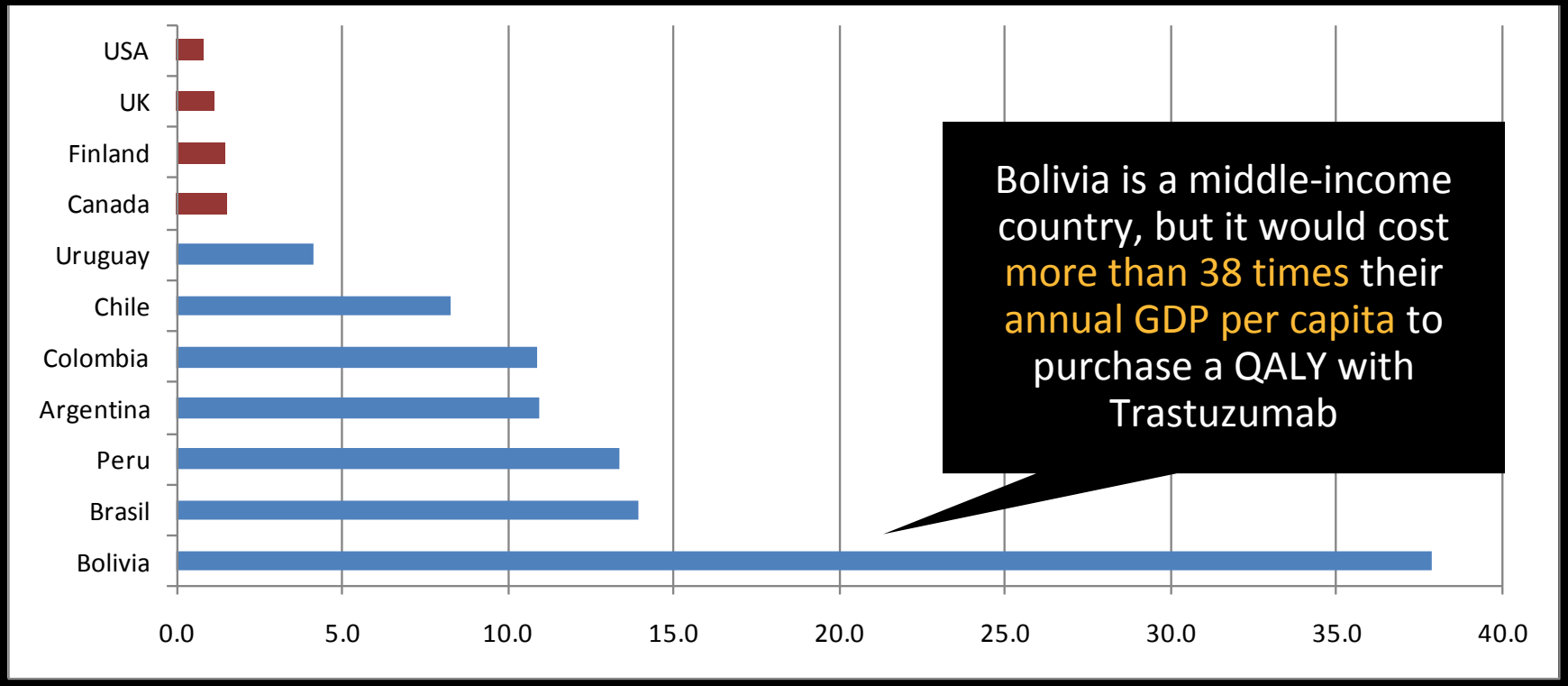
Lack of attention to governance issues…

Attribute	Examples of good governance	Examples of bad governance
Accountability	NICE is hold accountable by parliament and media on the recommendations it makes	In Mexico, there are no systematic adjustment processes for CAUSES or FPGC In Colombia the executive branch doesn't explain why certain inclusion decisions were made and whether the BP actually focuses on sanitary goals
Transparency	In Chile, the costing update studies are published and publicly available	Colombia, the original technical priority-setting studies used to design the HBP were lost and nobody really knows how decisions are made and on what criteria. In Uruguay, none of the documents explaining how the universal package was designed is publicly available
Responsiveness	Colombia periodically updates its benefits package	Dominican Republic has never updated its BP since its inception in 2001

Source: Giedion and Guzman 2015, forthcoming.

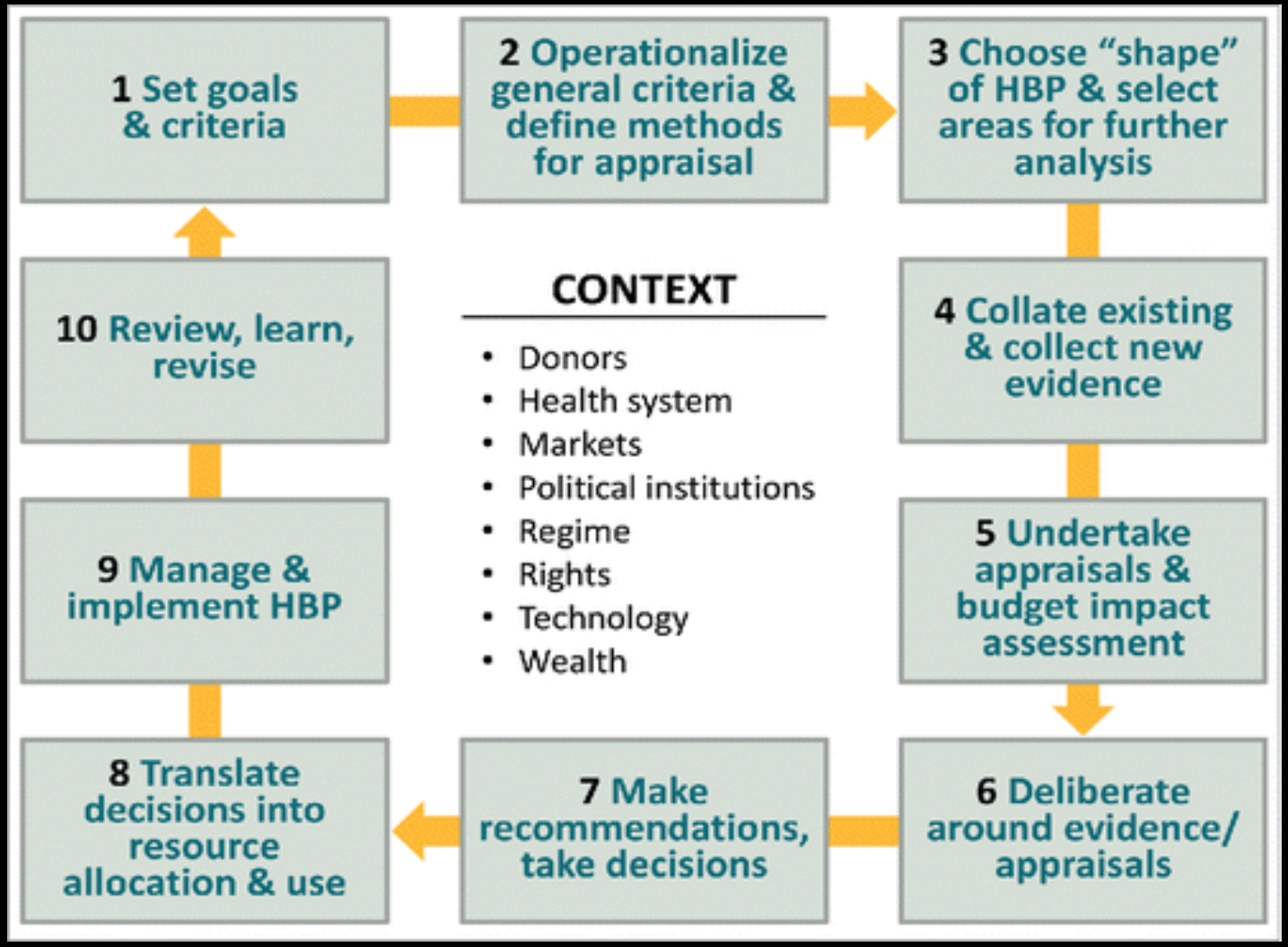
Weak availability of local data/context on affordability – efficacy global, budgets local!

Cost-utility of Trastuzumab expressed as number of GDP per QALY



Source: Andrés Pichon-Riviere , 2013. La aplicación de la evaluación de Tecnologías de Salud y las evaluaciones económicas en la definición de los Planes de Beneficios en Latinoamérica

Ten core elements of HBP policy



Main messages

- HBP that will have UHC impact are much more than lists or technical analyses
  - Good list is necessary but not sufficient
- Effective HBP will inform every other health system function
  - Financing, payment, organization, regulation, behavior
- They are widely used, but require continual adjustments and reform to enhance effectiveness and assure sustainability
  - Not a one-off consultancy, requires permanent home and capacity
- Process is as important as outcome for effectiveness and sustainability
  - Needs to be (widely perceived as) fair, ethical, transparent, defensible in court!
  - With a view to manage not ignore legitimate competing interests

THANK YOU!

CONTACT ME:

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- @glassmanamanda

MORE RESOURCES:

- What's In, What's Out
  - https://www.cgdev.org/publication/whats-in-whats-out-designing-benefits-universal-health-coverage
- Priority-setting in health: building institutions for smarter public spending
  - http://www.cgdev.org/publication/priority-setting-health-building-institutions-smarter-public-spending
- International Decision Support Initiative
  - http://www.idsihealth.org/

Extra slides
(not for presentation)

Claims data for HBP policy management

Primary use defines structure and quality of the dataset

- Reimbursement processing
- Risk adjustment

Many other potential uses

- Quality measurement
- Corruption/fraud detection
- Benefit and network design
- Continuous monitoring of projects/programs

Can expand uses by linking to other data

- E.g., beneficiary and user surveys

QUALITY OF CARE IN INDIA

By Matthew Morton, Somil Nagpal, Rajeev Sadanandan, and Sebastian Bauhoff

DOI: 10.1377/hlthaff.2016.0588
HEALTH AFFAIRS 35,
NO. 10 (2016): 1792–1799
©2016 Project HOPE—
The People-to-People Health
Foundation, Inc.

India's Largest Hospital Insurance Program Faces Challenges In Using Claims Data To Measure Quality

Need to account for incentives to produce data

Conflicting or missing incentives lead to unreliable, low-quality data

Intended use of data => incentives for data producers => data quality

- Determine payment (claims or bonus) for health services at the facility or network level (PBF, insurance claims, capitation)
- Assess how a facility/region/country is performing against HBP targets
- Assess performance of health teams or individual health workers for salary or promotion purposes

Financial incentive: claim additional services delivered

Reputational incentive: look good

Career incentive: advancement

Snapshot of hospital claims

Automatically generated data fields

RegistrationSystemDate	DischargeSystemDate	PackageCode	ProcedureName	PackageCost
16/05/2017 14:22:46	24/05/2017 11:08:09	VP01800999	MEDICAL	1000
17/05/2017 08:31:24	24/05/2017 15:10:06	FP00600028	GYNAECOLOGY	10000
18/05/2017 10:08:58	25/05/2017 14:06:56	VP01800999	MEDICAL	1000
24/05/2017 11:02:02	26/05/2017 11:52:42	FP00500078	GENERAL SURGERY	2500
24/05/2017 14:18:27	26/05/2017 12:25:11	VP01800999	MEDICAL	1000

Snapshot of hospital claims

Manually entered data fields (by operator at the hospital)

From patient card		Entered by operator				
Gender	Age	Gender	Age	RegistrationDesc	DischargeDesc	ProcedureName
1	12	1	13	nail remove	nail removal	GENERAL SURGERY
2	49	1	46	Hysterectomy Vaginal + cystocele repair	Hysterectomy (Abdominal and Vaginal) + Cystoc	COMBINED PACKAGES
2	50	2	44	TESTING	Laproscopic Appenjdicectomy	GENERAL SURGERY
1	25	1	27	appendix	cured	GENERAL SURGERY
2	29	2	28	lscs	Curred	GYNAECOLOGY
1	35	1	[illegible]	[illegible]	discharge	MEDICAL

Mortality	MortalitySummary
N	
Y	Patient is dead during hospitalization
N	

Snapshot of hospital claims

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1	25	1	27	appendix	cured	GENERAL SURGERY
2	29	2	Mortality	MortalitySummary	Curred	GYNAECOLOGY
1	35	1	32	admitted	discharge	MEDICAL

N

Y Patient is dead during hospitalization

N

Performance verification

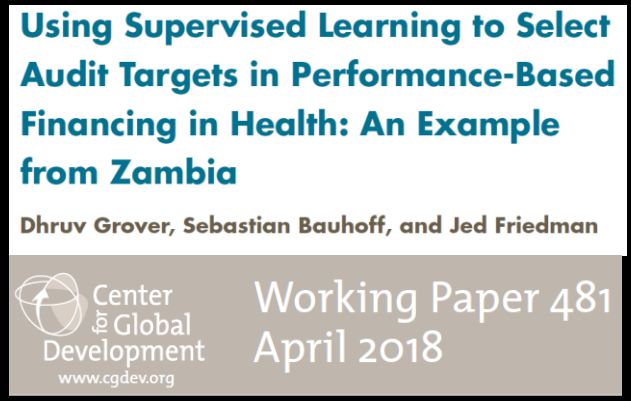
- Verify reported performance
  - Critical to the financing function of PBF
  - Also provides new/reliable data & opportunities to give feedback

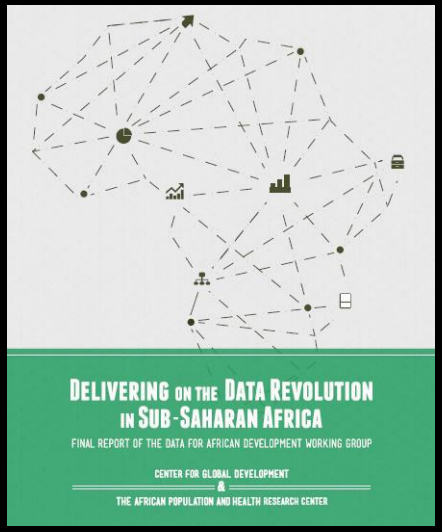
Audits must be independent, unannounced and probabilistic

- Sufficient to create a threat of detection
- Only effective if punishment is credible
- Auditing all facilities would be too expensive

Different approaches to verification

- Common but inefficient and expensive: random sampling
- Promising: risk-based targeting



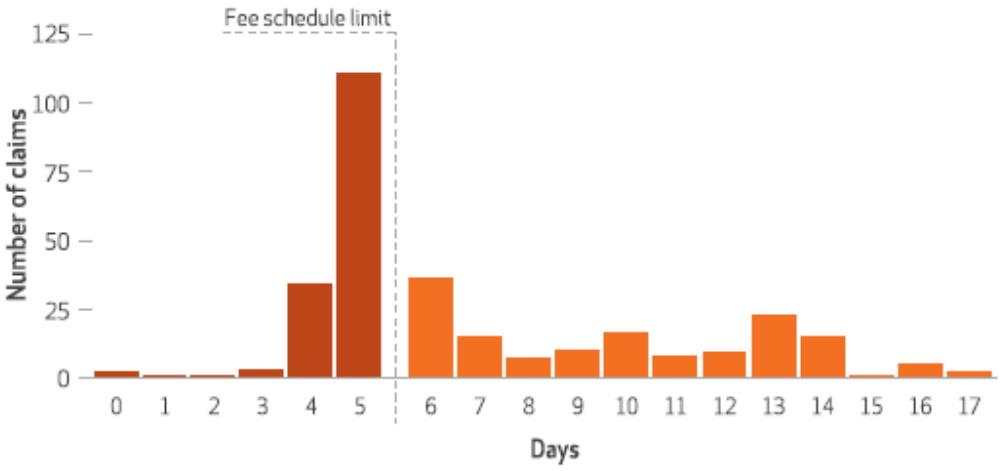


Using claims for quality measurement

Length of stay (India)

EXHIBIT 2

Lengths-of-stay for vaginal hysterectomy relative to length-of-stay in the RSBY fee schedule, for Puri District, Orissa, India, September 2013–January 2014

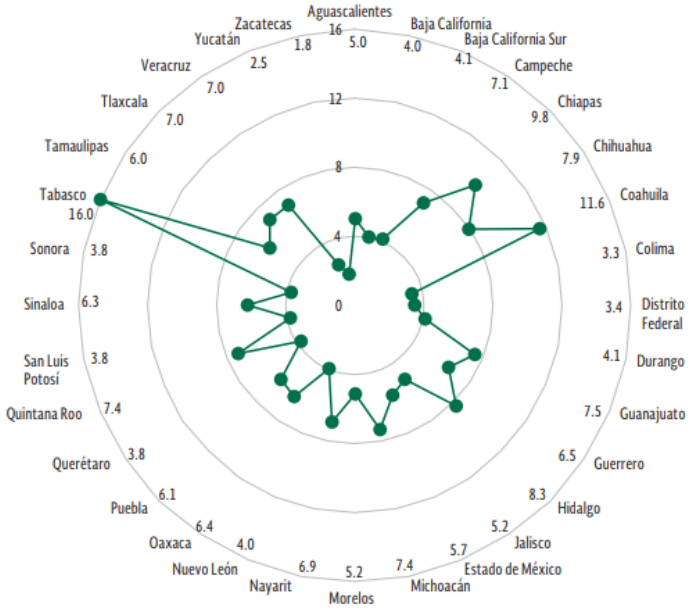


SOURCE Authors' analysis of claims data from Rashtriya Swasthya Bima Yojana (RSBY) for Puri District, Orissa, India. **NOTE** The fee schedule limits the length-of-stay for a vaginal hysterectomy to five days.

Tasa de mortalidad neonatal intrahospitalaria, 2014

Número de nacidos vivos que mueren antes de alcanzar los 28 días de edad, por cada 100 neonatos que egresaron del hospital.
Valor nacional: 5.8

Neonatal deaths (Mexico)



https://www.gob.mx/cms/uploads/attachment/file/58338/MH_2015.pdf

Using claims for quality measurement

EXHIBIT 3

Claims data and patient mix, ranked among the top 20 hospitals in Puri District, Orissa, India, September 2013–January 2014

Rank	No. of all claims	Medical claims (% of total)	Patient characteristics		Median LOS (days)	Median payment (rupees)	Total payments (rupees)
			Male	Ages 40 and older			
1	796	97	62%	67%	3	1,500	1,611,475
2	671	66	37	77	7	4,000	3,814,225
3	197	82	45	75	4	2,500	697,700
4	191	66	61	71	4	3,000	915,906
5	152	0	45	75	4	10,000	1,369,925
6	145	4	37	79	4	10,000	1,331,800
7	142	6	32	40	3	10,000	1,379,187
16	81	85	64	65	5	2,500	316,000
17	71	92	38	51	3	1,500	98,750
18	63	65	35	41	2	1,000	89,500
19	48	0	6	54	4	10,000	460,062
20	47	4	55	68	4	11,250	496,750

Source: Morton et al (2016)

Using claims for (fraud) monitoring

Simple approaches can make HBP more effective

Specialty claims in hospitals that don't have the relevant clinical department

Specialty	Hospital has requisite department (per hospital file)	
	Yes	No
Ophthalmology	32%	68%
Gynaecology	88%	12%

C-section rates are concentrated in some hospitals

Hospital c-section rate	Hospitals by type		All hospitals
	Private	Public	
0%	3%	32%	18%
0-49%	9%	9%	9%
50-99%	9%	26%	18%
100%	79%	32%	56%
Total	100%	100%	100%

Returns on investment from value-based HBP/listing policy

UK

Investment in the UK HTA Entity over 9 years estimated 8:1 Return On Investment through improvements in efficiency and reductions in price

Thailand

HTA informing pricing negotiations has saved $768 Million USD over 5 years

Thailand spends 0.007% of Total Health Expenditure on HTA – circa $1 Million

South Africa

SA spent 3.5% of public health expenditures ($519m) in 2010 on diabetes

If an HTA entity improved the efficiency of diabetes care pathways, and reduced diabetes costs by just 0.3%, it would break even (Based on R20 Million

Thai Example:
HTA informed decision to chose cervical screening over HPV vaccination (2007)

- ***Annually saved 750 deaths per year***
- ***Saved $6m***

Thai Example:
New drug regimen in PMTCT of HIV (2010)

- ***HTA informed decision annually averts 101 pediatric HIV infections***
- ***Saves $2.6 million USD per case (3-1 return on one decision)***

New Zealand's PHARMAC - a brief history

1993 - PHARMAC established, annual pharmaceutical spend $445M

1997 - First tender for sole supply in the community

2002 - Management of all cancer treatments

2003 - Annual spend $510M

- First decade - $2billion cumulative savings, 6% pa prescription growth

2012 - Management of immunisation vaccines

2013 - Annual spend $784M

- Second decade - $4billion cumulative savings, 6% pa prescription growth

2016 - $800 nominal budget, saved and re-invested $52.7 million, 44 million Rxs

Mission: "To secure for eligible people in need of pharmaceuticals, the best health outcomes that can reasonably be achieved, and from within the amount of funding provided."
New Zealand Health and Disability Act 2000

PHARMAC's long-term impact